Livelihoods, Value and Knowledge in Contemporary Paraguay

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Abstract: In this article we explore the connections among value, knowledge and livelihoods in contemporary Paraguay. Although the specifics of their livelihood activities differ, the experiences of traditional medicinal plant herbalists (*yuyeros*) in Asunción and rural *campesino* farmers thematically overlap. Both participant groups argue that their cultural and practical knowledge is important to the nation, but that their contributions—both actual and potential—to Paraguayan life and the nation are restricted by policies and practices that ignore and exclude them. Our analysis of the ways yuyeros and campesinos think about their livelihood activities demonstrates different valuations of certain kinds of knowledge and the implications this has for attempts to make a living.

Keywords: Paraguay, livelihoods, traditional medicine, agriculture, exclusion

Résumé : Nous explorons dans cet article les liens qui existent entre la valeur, le savoir et les moyens de subsistance dans le Paraguay contemporain. Bien que les spécificités de leurs activités de subsistance diffèrent, les expériences des herboristes traditionnels en plantes médicinales à Asunción (*yuyeros*) et celles des fermiers ruraux (*campesinos*) se recoupent thématiquement. Ces deux groupes de participants affirment que leurs savoirs pratiques et culturels sont importants pour la nation, mais que leurs contributions (actuelles et potentielles) à la vie et à la nation paraguayenne sont limitées par des politiques et des pratiques qui les ignorent et les excluent. Notre analyse de la façon dont *yuyeros* et *campesinos* conçoivent leurs activités de subsistance montre que certaines formes de savoir se voient attribuer des valeurs différentes, et met au jour les implications de cette différentiation pour ceux et celles qui tentent de subvenir à leurs besoins.

Mots-clés : Paraguay, moyens de subsistence, médecine traditionnelle, agriculture, exclusion

Introduction

In this article, we present two case studies, one of urban *yuyeros* (traditional medicinal herbalists) in Asunción and the other of *campesinos* in a small community in the Cordillera Department, to examine the intersections of value, knowledge and livelihoods in contemporary Paraguay. Although the specifics of livelihood activities among urban yuyeros and rural farmers are very different, we present these two case studies together to highlight overlapping themes in terms of experiences and perceptions of marginalization within Paraguay. Both groups highlight their cultural and practical knowledge in the form of traditional medicinal and agricultural practices as part of a Paraguayan heritage that is in danger of being lost or minimized. Our article demonstrates how, for yuyeros and campesinos, livelihood practices intersect with valuations of types of cultural and practical knowledge; we also discuss the messiness and livelihood implications of the ways people may be simultaneously incorporated and excluded within their nations.

We first present some background on Paraguay, focusing on issues of poverty, economic relationships, resource access and ongoing struggles around equity and land. We follow this by introducing our two case studies, exploring issues of making a living among the yuyeros and campesinos we worked with. Drawing on the everyday experiences and concerns of yuyeros and campesinos, we then explore notions of valuation, exclusion and the livelihood implications for participants from both groups.

Paraguay is a small, landlocked agrarian country with a population of approximately 6.5 million. The country has experienced numerous economic and political changes since the demise of the Stroessner dictatorship in 1989, including the 1991 development of the Mercosur (Mercado comun del sur) trade agreement between Argentina, Brazil, Paraguay and Uruguay (with Venezuela joining as a full member in 2012). The national poverty

rate has remained high. The country's 2009 household survey found that the national poverty rate was 35 per cent, with those in extreme poverty representing approximately 19 per cent of the population; the poverty rate in rural areas was almost 50 per cent, with 32 per cent in extreme poverty (General de Estadistica, Direccion Encuestas y Censos [DGEEC] 2009). Informal labour dominates the country, and approximately 70 per cent of rural and 60 per cent of urban employment is in the informal sector (Bertelsmann Stiftung BTI 2012:14).

Although it is a founding and full member of Mercosur, Paraguay's interests are not necessarily always aligned with those of Brazil and Argentina, the two larger markets in the agreement, and its smaller economy means it is unable to "actively frame the agenda for cooperation with its neighbours" (Bertelsmann Stiftung BTI 2012:27). Close economic ties to Brazil and Argentina also mean that Paraguay's currency and economic stability can be directly affected by economic fluctuations in these two countries (16, 27). Borraz and colleagues (2012) note asymmetries in the distribution of benefits from the Mercosur agreement and found that since its introduction Paraguayan wage labour incomes have suffered in almost all employment sectors. Vásquez-León's (2010) examination of two Paraguayan agricultural cooperatives provides some examples of the asymmetries farmers may experience when engaging with Mercosur trade partners. The organic sugar and banana cooperatives that Vásquez-León analyzes are both in direct competition with Brazil; although sugar is one of the country's larger agricultural products, it accounts for only 1 per cent of the sugar that enters Mercosur (2010:62). Even as states and private enterprises argue for better integration of the trade agreement, they may fail to enforce the agreement's regulations (67). This contributes to risk and dependency, not just for farming cooperatives but also for the country as a whole.

Mercosur partners influence the Paraguayan economy in other ways. Total foreign ownership of Paraguay farms over 1,000 hectares is approximately 23 per cent, with 14 per cent owned by Brazilians (Bertelsmann Stiftung BTI 2012:7). However, in three departments bordering Brazil (Alto Parana, Cauguazu and Canindeyu), foreigners own between 62 and 63 per cent of farms over 1,000 hectares (Galeano 2012:459). The Brazilian government supports the interests of Brazilian farmers in Paraguay (Bertelsmann Stiftung BTI 2012:7), and the exclusion of Paraguayan peasants in these and other departments has been met with limited Paraguayan state action. Moreover, the products of Brazilian-owned farms may contribute to Brazilian exports rather than to the Paraguayan economy per se (Galeano 2012:464).

The everyday realities of economic inequities and resource access in Paraguay (as elsewhere) unfold in different ways and are related to factors including household size and location, economic strategies and diversification, ownership of land or property, social and political connections, and access to non-material resources like education and infrastructural services. The inequitable distribution of land remains a key factor in the maintenance of poverty in Paraguay. Weisskoff (1992) and Nagel (1999) have discussed earlier land distribution issues and conflicts, and more recent work has examined inequalities in land ownership, land access, and forest conservation tensions (Quintana and Morse 2005), and the ongoing favouring of large-scale, export-oriented agriculture (especially soy) by the Paraguayan state since the mid-1990s (Carter et al. 1996; Galeano 2012; P. Richards 2011). The soy boom has contributed to an "exclusionary and socially problematic" agricultural export boom, which has further limited campesino access to land and farm employment (Carter et al. 1996:57), although, at least in some cases, illegally occupied lands may be redistributed to landless Paraguayans (Hoy.com.py 2014).

Campesino households with access to land, particularly those living in the central region of the country, typically own five hectares or less, and the proximity to Asunción can be key in providing rural households with a "safety valve" for earning off-farm income to maintain the household (Zoomers and Kleinpenning 1996:162–163). Hetherington (2008, 2009) has addressed the complexities of land titling and documentation in Paraguay and the struggles around property rights and notions of private property (see also Nagel 1999) and the way these issues can reinforce poverty and inequality among campesino farmers. Brown and Weisberg (2007), Corporate Europe Observatory (2009) and D. Richards (2010), among others, have discussed the ways that the soy agricultural industry is contributing to landlessness (both actual and functional), displacement, food insecurity and health issues among campesino farmers in the eastern and northwestern parts of the country.

The 21 June 2012 impeachment of President Fernando Lugo[1] and his subsequent removal from office on 22 June, again highlighted some of the ongoing inequities and struggles regarding land reform and land access in Paraguay. Referred to as a coup by many, government officials used a clash between landless peasants and police on 15 June in the northern Canindeyu Department, which resulted in 17 deaths, as a way to

remove President Lugo from office. Despite being pro-poor, President Lugo had been unable to address land reform in a meaningful way, and he had been unable to stop illegal land transfers that benefited the rich, largely because of internal factions and power struggles (see Nickson 2012 for a detailed discussion of the impeachment; see also Bertelsmann Stiftung BTI 2012). Fuentes (2012) notes that by removing President Lugo established political powers in Paraguay began to reverse some of the gains made while he was in power. These include allowing a U.S. oil company to resume oil exploration in the sensitive Chaco region of the country and the approval of transgenic agricultural products, which Lugo had blocked while president. In short, these decisions benefit multinational corporations, large-scale farmers and local elites, while doing nothing to address ongoing and worsening problems of land access and peasant exclusion in Paraguay.

While economic inequities are ongoing in Paraguay, research has demonstrated degrees of poverty and resource exclusion within the nation. Wainerman and colleagues (1980), for example, address the ways in which women's participation in Paraguay's urban and rural economies intersects with traditional gender roles, and Horst (2007) offers a detailed history of the oppression and exclusion of indigenous peoples in Paraguay. It is therefore important to note that in this article we focus on the lives of participants who own or have access to certain material or immaterial resources. They are not the poorest of the poor, but they nevertheless experience barriers to economic security. We now turn to our two case studies.

Yuyeros: "We are in Paraguay, so if you have money you have power"

Our first case study explores the experiences of yuyeros, who argue that knowledge about and use of traditional medicinal plants is part of Paraguayan cultural heritage and everyday health-seeking culture. Despite this, their experiences highlight neglect on the part of decision-makers in the economic sphere, with implications both for vendors' livelihoods and for the maintenance of cultural knowledge.

From June to August 2011, Millman worked with yuyeros in Asunción markets to examine the livelihood implications of selling traditional herbal products. Participant observation and semi-structured interviews were the primary methods of data collection. Observation was carried out in three city markets: Mercado Cuatro, Mercado Abasto and Agroshopping, as well as in other areas throughout the city where yuyeros could be found. Millman spent time with yuyeros and also purchased plants in various forms to consume in teas. Semi-structured interviews were conducted with 19 market vendors—15 women and 4 men—ranging in age from their early twenties to mid-eighties. Based on those who disclosed their exact ages, the average age of participants was 54, and most participants had multiple children. Here, we focus on the experiences of vendors in two of the markets, Mercado Cuatro and Mercado Abasto, which function throughout the week. These markets are run by market administrations, and, as physical spaces, they are characterized by poor infrastructure, safety issues and concerns about precarious work. Participants involved in the research had worked in Mercado Cuatro for an average of 24 years, and those in Mercado Abasto for an average of 30 years.

Mercado Cuatro is a crowded, bustling market occupying several city blocks in central Asunción. The market is divided into numerous informal sections, and several streets are occupied by the yuyeros. Mercado Abasto is located in the city of San Lorenzo (part of the greater metropolitan area of Gran Asunción) and is significantly smaller than Mercado Cuatro. Vendors of medicinal plants, fruits and vegetables purchase goods at Abasto to resell at Mercado Cuatro. Mercado Abasto's busiest times are in the very early mornings. Most participants worked in the Mercados Cuatro or Abasto six or seven days per week, opening shops and stalls in the early mornings, and remaining in the markets until the late afternoon or early evening. Although this is not technically allowed by market administrations, some yuyeros live in Mercado Cuatro throughout the week.

The medicinal plants sold in the markets and on the streets of Asunción can be purchased as fresh or dried leaves, powders, balms and capsules but are most often consumed fresh or dried as hot or cold teas (*maté* or *tereré*). Drinking maté and tereré is part of the daily routine for most Asunción residents. Medicinal plants and herbs used in maté and tereré may be incorporated for taste but also are believed to promote daily health by staving off problems such as headaches and gastrointestinal illnesses. The numerous small stalls—usually a small table covered with fresh plants such as *manzanilla* (chamomile), *menta'i* (*Mentha piperita*) and *boldo* (*Peumus boldus*)—at street corners throughout Asunción speak to the popularity of incorporating these remedies into daily life; people stop at these stalls throughout the day to get plants added to their maté or tereré.

Some remedies are prepackaged combinations, but individual plants are believed to have medicinal properties that treat a range of illnesses, from coughs or colds to cancer and diabetes. Others are used for fertility or to treat certain cultural illnesses such as *frialdad*—a

culture-bound syndrome pertaining to problems of the female reproductive system (Flanagan 2012:134)—or *susto*—another culture-bound illness involving various general symptoms stemming from a frightening event (Bourbonnais-Spear et al. 2007:380). Many remedies are considered as treatments of "women's problems" such as frialdad, and as methods of contraception or as *abortivos* (Arenas and Moreno Azorero 1977). Participants frequently discussed how women are often more comfortable consulting female yuyeras about these problems than treating them with pharmaceuticals. Paraguayan women's use of medicinal plants for contraception has been documented by Bull and Melían (1998:50), who conclude that, despite scientifically questionable efficacy, Paraguayan women are more familiar overall with these plants than with any other form of family planning and therefore tend to prefer these traditional methods.

As with the plant preparations, yuyeros in the markets of Asunción are incredibly diverse. Some occupy indoor stores containing a large variety of plants in various forms. These businesses may have established their own brand names and have the resources to pay for packaging materials with their brand printed on the front. There are usually several people, often family, working at these larger stores. At the other end of the spectrum are businesses consisting of only one individual who offers a small choice of fresh or dried plants laid out across a blanket on the sidewalk and who may not always be found in the same location each day. In between these two extremes lie a range of different types of businesses; some occupy one or two carts containing fresh or dried plants and, occasionally, prepackaged powders, balms or liquids, while others are based in smaller indoor stores with a large variety of dried plants only.

Participants also differed in their knowledge of the plants. While many learned about the plants and how they are used from their parents or grandparents, some only sell the plants and know little about their uses. As a result, while some feel equipped to advise or prescribe certain remedies, others simply supply specific products that customers know about and are looking for. Vendors therefore do not uniformly consider themselves to be medical practitioners. However, central to vendors' sense of value in their professions is their direct connection to and knowledge about Paraguay's indigenous tradition of medicinal plant use.

Figueredo (1997) and Jiménez (2009) both highlight the historical indigenous heritage of medicinal plant knowledge in Paraguay and these plants' use in natural remedies (see also Arenas and Moreno Azorero 1977). Figueredo (1997:1) credits the Guarani with establishing the knowledge of local plant properties, uses and potencies that serve as the foundation for contemporary medicinal plant knowledge and therapy in both urban and rural households in Paraguay. Jiménez (2009:11) notes that the infusions used on a daily basis in maté and tereré have been passed down through the oral traditions of the Guarani; Arenas and Kamienkowski (2013) have worked with indigenous groups in the Gran Chaco, gathering ethnobotanical data on specific plant species.

When discussing the cultural importance of the products they sell, yuyeros positioned themselves as central to the everyday expression and enactment of Paraguayan identity, thus connecting themselves to Paraguay's indigenous Guarani heritage. Because medicinal plant remedies can be traced back to their use by the Guarani indigenous peoples, participants argued that taking medicinal plant remedies to treat a vast array of illnesses is an integral part of being Paraguayan and of maintaining Paraguayan heritage and tradition. Most participants connected to this long oral tradition personally, which they had learned from family members, usually mothers, aunts or grandmothers. One 81-year-old participant recounted very emotionally how his Guarani mother taught him the medicinal plant knowledge that, as an adult, he was then able to use to heal himself of a serious illness. Of course, connecting traditional medicine and cultural heritage is not limited to Paraguayan traditional medicine; for example, Abraham (2009:68) points out that indigenous medicinal frameworks such as Ayurveda provide individuals with a "cultural template," including a health culture, rather than simply a method of treating illness. Yuyeros highlighted cultural heritage and traditional knowledge in several ways:

> Identity is very important with the plants ... It is important because all the people know about the power of the plants and it's the only option. One day, other medicines will end and the better option is with the plants. [Woman, 61, at Mercado Cuatro]

> Tradition is important. If you are Paraguayan and don't know about the medicinal plants it's an impossible situation. All Paraguayans know about them ... It's an authentic tradition and so many people want to know about it. [Woman, 60, at Mercado Cuatro]

> If you want to know what is *poho ñana* [medicinal plants] you must talk to someone who has studied Paraguayan culture, because it is a tradition. [Elderly woman at Mercado Cuatro]

In addition, yuyeros consistently emphasized that medicinal plants are an integral part of Paraguayan culture; they argue that people in every age group and

socio-economic stratum use these medicines in everyday and ritual ways.[2] For example, the preparation of particular mixtures was part of certain traditional days, such as drinking *karrulin* on the first of August to reinforce strength and health for a month that is usually agriculturally strenuous.

The majority of participants do not grow their own plants; rather, the plants are picked in the countryside and brought into the city. Continued access to plants from the countryside is key to both the maintenance of livelihoods and the preservation of traditional knowledge as the foundation of this livelihood. Some plants are purchased from farmers who grow them on small plots of land specifically for the traditional medicine market; others are gathered from wild lands, either forested or a *ñu*, a valley or a space without trees where the plants naturally grow. While many were concerned with the preservation of traditional knowledge, others were not overly concerned about access to these plants, believing that they are abundant in wild or agricultural spaces outside of the city. Yet some agricultural sciences faculty at the Universidad Nacional de Asunción have serious concerns about the biodiversity of medicinal plants;[3] one explained that many medicinal plants are "pulled out by the roots" and cannot grow back (see Basualdo et al. 1991, 1995 for descriptions of some of the underground organs of plants sold as medicinal remedies in Mercado Cuatro). Of the 13 species of plants that Basualdo and colleagues (1991) collected from medicinal plant vendors in Mercado Cuatro, only one was cultivated, with the remainder growing in the wild. Another Universidad Nacional de Asunción faculty member reiterated that the primary method of obtaining medicinal plants—picking them in the wild—is an unsustainable practice at the rate they are currently being harvested. According to Bratschi (2013), some members of the Swiss Red Cross have similar concerns. This organization has been supporting Paraguayan efforts to sustainably produce medicinal plants and to preserve medicinal plant knowledge in the face of unregulated harvesting and, more importantly, ongoing deforestation that largely results from large-scale export-oriented soy production. As P. Richards (2011:347) points out, over the past 40 years, Paraguay's eastern forest has been pressured by "converging fronts of deforestation" by both smallholders and large-scale commodity agriculture. Governmental policies and practices that privilege agricultural expansion or ignore illegal deforestation affect biodiversity as a whole; in terms of medical plants that must be gathered in wild spaces, this both reduces accessibility and affects the sustainability of the remaining patches of land. The consolidation of land associated with large-scale farming also has the potential to put at risk the availability of plants cultivated by small-scale farmers for the traditional medicine market.

While yuyeros are dependent on agricultural and wild lands for their products, they are also dependent on the commercial spaces they obtain in Asunción's markets. Yet, despite busy days and many customers who valued their products and knowledge, yuyeros argued that on a day-to-day basis, they are neglected by market administrations, promoting a sense that they are undervalued as contributors to the local economy. As vendors, they are incorporated into and expected to follow a set of rules and regulations to maintain their shops and stalls. This includes paying relatively high fees to obtain required certifications to sell their products and to rent space in the markets. Nevertheless, they consider their working environments unsafe. Despite the diversity in the types of businesses vendors run, shared among them are the dilapidated and dangerous working conditions of the markets. Stores have crumbling walls and improper electric installations and are allowed to continue operation despite risks of fire, electric shock, flooding and building collapse; carts are rusted and falling apart.

On 7 February 2014 these dangerous working conditions were evident when an electrical short-circuit started a fire that quickly spread throughout the tightly packed market; the end result was the destruction of hundreds of vendor stalls (Thomson Reuters Foundation 2014). Since this incident, the dangerous conditions of the market have been publicly problematized and described as in a state of "emergency" owing to its "improvised" construction (Paraguay.com 2014a). In response to the fire, the mayor of Asunción reconfigured the management of Mercado Cuatro, and funds have been directed toward improving the electrical installations (Paraguay.com 2014b). Although this begins to address some of the safety concerns held by participants, the degree to which infrastructural issues will be addressed under the market's new management has yet to be seen.

Moreover, participants have concerns beyond the structural safety of the markets. For example, one elderly yuyera at Mercado Abasto discussed how they had lost access to services previously provided. She said, "Working conditions are very dangerous. They don't have service for the people working here, like the children. There are many young people and children working here. Years ago we had doctors who came once a week but not anymore. No one comes now to ask how we are doing." Aside from pointing to changes in market working conditions, this further highlights vendors' recognition of the importance of a plurality of health

care options. While their own remedies are important, they also appreciated having access to biomedical care for themselves and their families.

Market administrations were also described as having the ability to determine rent and to put a stall or store out of business, making everyday livelihoods somewhat precarious and at the mercy of power-holders. Participants indicated that they felt they could not lodge complaints about the conditions of their work or make requests for improvement. As one participant from Mercado Abasto put it, "You just have to pay your rent and be quiet. This is good for you."

Campesinos: "If you are poor, there is nothing for you"

Our second case study focuses on small-scale farming, in which farmer participants argue that they and their products are not valued by the state. This partly includes being excluded and ignored in agricultural development, which affects their abilities to make a living as farmers. Lindo Manantial (a pseudonym) is a campesino community in the Piribebuy District, Cordillera Department, approximately 75 kilometres from Asunción. Finnis has been conducting research on agricultural and dietary practices with this community since 2009, as part of a project with agronomists from the Universidad Nacional de Asunción. Data collection methods over three fieldwork seasons include participant observation while living in the community, project planning and outcome meetings with community members, three focus groups and semi-structured qualitative interviews and follow-up interviews with 45 members of 32 households. Some community members participated in focus groups and interviews, while others were involved with only one or the other. Participants' ages ranged from the late teens/early twenties to 75 and older. However, just over 60 per cent of participants were in their mid-forties to mid-seventies; in addition, just over 70 per cent of the participants were women. Age distributions and the gender skew reflect the composition of the community as a whole.

Members of this community typically own less than five hectares of land, which they cultivate manually or with the aid of oxen. Cassava (*Manihot esculenta*), locally called *mandioca*, is the primary crop, and citrus trees (oranges, mandarins, lemons and pomelo) are plentiful, providing an overabundance of fruit during the harvest season. Some households also cultivate other produce including sugar cane, bananas, pineapples and beans. Chickens are commonly raised for household use, and some families also raise a few dairy cattle or pigs, generally for small local sales and household consumption. Although the community is relatively close to Asunción, and thus theoretically better able to access agricultural markets and agricultural innovations (Zoomers and Kleinpenning 1996), road access into the community is poor, limiting travel and restricting access to agricultural markets. Households are unable to rely on agricultural livelihoods for income, something we will expand on later in the article.

In her discussion of citrus farming in Belize, Medina (1997) notes that the country places value on large-scale, export-oriented production as an economic development strategy. Large-scale farmers are valued as contributors to the nation's development, while smallholder production geared toward household and local consumption is given limited economic recognition. Campesinos in Lindo Manantial make a similar argument, highlighting a lack of infrastructure and support. Although they grow cassava as a staple food, they are unable to sell this crop for a combination of reasons, including poor roads to the community making transportation very difficult, and a lack of local factories where tubers could be sold and processed into starch. More importantly, people argue that the current agricultural system is not set up to benefit or support campesinos. Participants state that the government specifically excludes campesinos by withholding resources, including the technical assistance farmers need to become more efficient, profitable and, in the context of climate uncertainty, more resilient cultivators. Statements such as "We need seeds and technical assistance" (Man, 31) and "We look for assistance, how to grow better crops. But there is no help" (Man, early fifties) indicate the desire for better integration into any national training schemes.

Moreover, farmers argue, not only are they unable to access government resources and support, but also the things they grow—especially cassava and citrus fruits—are not exported and they cannot sell these things within Paraguay; yet imported cassava products and citrus fruits are available for sale in Paraguayan grocery stores. For example:

> No one comes to buy [citrus fruits] because the way is too difficult. Also, truckloads of fruits—pomelos and mandarins and oranges—come from plantations in Argentina, so people here can't compete with those huge farms. [Woman, late forties]
>
> All the things are from Argentina and Brazil. The *almidon* (cassava starch) from Brazil is very cheap because the mill is automated. [Man, early eighties]

Farmers connect agricultural marginalization, lack of government attention and their subsequent inability to make a living from farming with feelings of uncer-

tainty, "misery" and concerns about petty criminal activities. For example, one afternoon, early on in the 2009 field season, a farmer took Finnis to inspect a distant field. The night before, approximately 30 cassava plants had been uprooted and the tubers stolen. The owner of the field, a man in his eighties, was angry but claimed that this was the way things were now and that people who stole cassava were probably people who desperately needed the food. In 2010 the same household continued to suffer these kinds of losses, and the owner's wife voiced concerns about possible violence. People had guns, she said, and there was no use trying to protect the fields.

People primarily discussed stealing and violence in terms of crops, but sometimes it extended to material goods. One man, in his early fifties, described it this way: "They steal food and animals. They even steal barbed wire ... in the past we slept outside but now we have to sleep in the house." When asked why stealing had become such a problem, he said, "There's no work, so they have to steal. There's a lot of misery here ... People suffer, children suffer."

Outmigration is one response to the inability to make a living from farming. Weisskoff (1992) suggested that worsening land distribution and rural poverty in Paraguay would lead to a significant migration from rural to urban areas. This is certainly the case in Lindo Manantial, where most young adults have left the community for urban work. Since agriculture is not a viable livelihood, households rely on off-farm work or remittances from family members working outside of the community, which are key to the everyday maintenance of life in the village. This is reflected in the demographic composition of the community, in that those old enough to work elsewhere have typically left the very young and the aging behind.

Cultural Knowledge, Loss and Valuation

In this section, we consider how the two case studies illustrate tensions around notions of value when it comes to cultural knowledge and the potential for loss of that knowledge. Both yuyeros and campesinos argue that they—and their knowledge—are undervalued by power-holders in terms of contributing to the nation, even as this knowledge is connected to the cultural heritage of Paraguay. Both groups argue that value is not being associated with their cultural and practical knowledge but, rather, with those who generate large revenues and maintain or bolster international ties.

For yuyeros, the cultural heritage associated with Paraguay's medicinal plants and their economic accessibility to the majority of Paraguayans illustrate the value of traditional medicinal plant knowledge. Despite seeing themselves as central to culturally appropriate and socio-economically accessible health care, yuyeros argued that pharmaceutical companies and biomedical doctors were more important to government priorities. We do not want to suggest that yuyeros were without considerable self-interest in expressing discontent about support for biomedicine at the expense of traditional remedies. At the same time, it is important to note that they did not argue that they should be the only source of health care for Paraguayans, and they did not inherently object to the presence of biomedical health care options. For example, yuyeros often described traditional medicines as "slow but sure," best suited to certain less acute types of health concerns such as gastrointestinal problems, headaches or colds. They acknowledged that certain illnesses (such as diabetes or high blood pressure) require biomedical intervention.

While yuyeros did not see themselves as the only viable medical practitioners, it is important to point out that they wanted to be acknowledged and valued as holding and sharing the cultural heritage elements of everyday and ritual use of traditional medicines. Participants argued that the state government lacks any meaningful knowledge about traditional medicines and consequently does not value the preservation of the rural biodiversity that is directly linked to access to many of these medicines; they were dismayed that the preservation of culturally significant traditional medicinal knowledge did not appear to register on the government agenda. Yet, they asserted, many important members of the government consume medicinal plants themselves, venturing into their shops at Mercado Cuatro to purchase them. Yuyeros were frustrated by this disjuncture. For example, one 81-year-old man expressed dismay about the government's apparent lack of concern over the sustainability of local plant species, not simply from a practical economic standpoint but also in terms of the possible loss of cultural knowledge. It is the yuyeros who provide access to the plants for those who live in urban centres and who provide the means by which this knowledge can be used. Thus, if yuyeros are a key repository of traditional medicinal knowledge, the question becomes how that knowledge may be maintained if the profession becomes increasingly unsustainable (owing to knowledge loss or limited access to plants) as a livelihood.

For farmers in Lindo Manantial, the focus on knowledge and value centres on pesticide- and chemical-free agricultural practices, as well as general knowledge about preparing and maintaining quality land. As with yuyeros' discussions of plants versus pharmaceutical

chemicals, farmers argue that "natural" products have an inherent value, even if this is not recognized or supported by recent governments. In 2009, for example, Finnis was invited to examine natural pest control methods for citrus trees, where insects were diverted from fruit by carefully placed containers of sweetened water. Participants indicated that unlike those who produce for mass sale, they grow things in a "natural" way, arguing that their chemical-free farming was healthier for people and better for the land, that the taste of their citrus was very good and that they were happy they were able to eat some foods not contaminated by unknown chemicals. At the same time, they were very aware that these practices reflected and reinforced the position of being agriculturally peripheral and undervalued.

Moreover, the ongoing migration of young people to urban centres and away from farming reduces options for passing on and maintaining agricultural knowledge. For some, this is a cause for concern, as it only contributes to a loss of practical agricultural knowledge, even as it contributes to changes in what people can reasonably grow as their labour base decreases (Finnis et al. 2012). One man, 60 years old, highlighted the loss of knowledge this way:

> Children don't want to be farmers now. They don't want to stay in the rural areas because here there is no money. The young people say they want to go to Asunción and we say OK, because you want so many things and I can't give them to you. In 50 years, no one will know how to keep the soil healthy. They might know now, some people, but many people don't know.

This is a problem not just for now, he argued, but also in terms of any future for farming in the area. If farming is unsustainable as a livelihood and people lose agricultural knowledge, then they will not be able to take advantage of any future agricultural opportunities should they be initiated or made possible by government or private enterprise activities, which would further consolidate agriculture in the realm of large-scale, export-oriented enterprises. Thus, most participants argued that there is no future for agriculture in the area because campesinos, their livelihoods and their capacity to contribute to Paraguayan food chains, and subsequently the national economy, were systematically unrecognized and undervalued.

Who (and What) Is Valued?

Yuyeros had clear ideas about who was valued and supported by national and local power-holders. They argued that because pharmaceutical companies generate more revenue, they are the sole beneficiaries of government support and promotion. For example, a 65-year-old man said, "The government doesn't support us selling the herbs and makes it hard for us ... It supports the pharmaceutical companies instead," while a 60-year-old woman put it this way: "The government does not support [us] because there is a [financial] deficit and we are not a priority."

Like yuyeros in Asunción, farmers in Lindo Manantial have very clear ideas about who they feel is valued in Paraguay's agro-economic landscape: the large-scale farmers, especially those who produce for export markets. Thus, participants consider the lack of resources and support for farming—both in the community and among campesinos in general—as part of a systematic neglect by the government in favour of farmers who are *already* economically secure. These everyday concerns intersect with an overall history of land distribution and titling inequities along with rural violence (Hetherington 2008; Nagel 1999), patterns of land consolidation by political and industrial elites, and support for export-oriented (especially genetically modified soy) agriculture (Galeano 2012; D. Richards 2010; P. Richards 2011) across Paraguay, which is part of the New Green Revolution in South America's Southern Cone (D. Richards 2010). Even though farmers in Lindo Manantial are physically removed from the main areas of the country where large-scale soy agriculture has been expanding since the 1990s, they nevertheless understand themselves as part of a larger pattern of smallholder neglect. Participants articulated these concerns in numerous ways:

> The government doesn't care for the small producers, only the big farmers with the big companies, especially in the North. All the projects are only for people with professions ... but if you are poor, there's nothing for you. [Woman, 39]

> Lugo [the president at the time of the interview] is not interested in the campesinos. Only in the farmers who have a lot of money. [Woman, 60]

> The government doesn't help the smaller farmers—they don't help them produce all the seeds on the farm. The government forgets [the campesinos] ... the government will only help the companies and the big farmers. [Man, early fifties]

The connections between this sense of neglect and feeling undervalued was summed up succinctly by one 49-year-old woman, who linked money, government and the agricultural future of the community when she said, "The big companies have money but the other farmers

are poor, so the government forgets about us ... I don't see a future here."

Somers (2008:90) notes that in market economies, knowledge, skills and contributions are assigned values, and those without significant market value may not be recognized by elites as having equal moral wealth and equal value to the nation. In thinking about this, it is important to consider *who* is doing the valuing of knowledge, skills and contributions and the ways that relative value may therefore be very different. Yuyero experiences in Asunción are an important example of the potential everyday *messiness* of valuation, highlighting a disjuncture between how medicinal plant remedies are valued as part of Paraguayan identity and cultural heritage and how they are undervalued as a part of the Paraguayan economy, even as they are an important livelihood strategy for yuyeros. Similarly, campesino farmers value being able to grow their own foods, not just because they have to buy things if they cannot grow them, but also because they know *how* the foods have been grown and they value access to organically-produced foods.

Incorporation, Exclusion and Precarious Livelihoods

Given our previous discussion of different valuations of bodies of knowledge, in this section we briefly explore how issues of incorporation play out in terms of livelihood implications. We have already discussed perceptions of neglect but the terms and conditions of incorporation also play out in the everyday constraints that people face in trying to make a living. Du Toit (2004:1003) notes that marginality is defined by the terms and conditions of incorporation into social systems, particularly economic systems; we must, therefore, go beyond earlier ideas of an exclusion/inclusion binary when discussing livelihood activities. This means thinking through how marginalized groups are not so much excluded as adversely incorporated into economic and social structures, contributing to chronic poverty. Nevile (2007:253) adds to this argument by highlighting the importance of asking whether incorporation or exclusion is active or passive, related to active choices or unintended consequences of economic and trade policy decisions. Kantor's (2009) analysis of the labour market inclusion of women in Lucknow, India, demonstrates the need to look at the specifics of the ways that people may be simultaneously included and excluded in different aspects of their livelihood activities.

Yuyeros occupy an economic position that incorporates elements of informal and formal economic systems, in that they are required to adhere to certain conditions to sell their products but are excluded from related benefits. As discussed above, yuyeros must obtain certifications to sell their products, and they can expect that market administration members or police will check for these certifications; without them, they are at risk of having their businesses shut down. Nevertheless, market or municipal administrations do not ensure that the markets are safe, secure places to work. Thus, despite being technically governed by an administrative body, vendors argue that, in reality, Mercados Cuatro and Abasto are not monitored or regulated in any kind of meaningful way, leading to the dilapidated and dangerous working conditions.

One of the implications of this kind of precarious, peripheral positioning is the threat of underemployment, particularly for the smaller stalls or sidewalk sellers but even for yuyeros who are relatively successful. For example, one 61-year-old female vendor explained that she has to pay a lot of money to keep her stall in Mercado Cuatro, yet she does not believe that the administration inspectors, who she says can be quite volatile, really know what she does. Another woman vendor in Mercado Cuatro asserted that it costs a lot of money to have a big store and that some plants are too expensive for sellers to purchase from suppliers, thus curtailing profit potentials. Despite the popularity of medicinal plants, the high costs of space in the market compared to the relatively low profit made per remedy means that for some vendors, even when business is good, improving one's standard of living is difficult or impossible. One 60-year-old female vendor explained that she does not bother working on Sundays because the profit she would make in one day does not make enough of a difference to warrant omitting the time off. As she puts it, "If you're poor you're always poor."

Precarious livelihoods also characterize the experiences of campesinos in Lindo Manantial, where current agricultural livelihood woes are the result of limited land availability, trade relationships and government decisions that are simply not to the benefit of campesinos, as well as poor infrastructure (roads, markets) that makes crops less marketable. In this sense, the situation can be understood as both active and passive adverse incorporation—active in terms of the macro-level policy decisions that have been made regarding trade relations, the push for export crops and land distribution practices in the country's northern departments (Galeano 2012; Nickson 2012; D. Richards 2010; P. Richards 2011; see also Nagel 1999 and Weisskoff 1992), yet passive in the sense that farmers feel they and their community are simply being ignored. The system, farmers argue, is just not set up for their benefit.

In other words, farmers have poor access to opportunities, information, political connections and leverage (Bird and Shepherd 2003:592), signalling their economic exclusion and devaluing their potential contributions to the nation. The reality is that small-scale farming practices provide access to key subsistence foods like mandioca for campesino households. But since their practices do not fit the norms of the region's New Green Revolution, this can be understood as a kind of cultural exclusion even as the proliferation of export agriculture and large-scale farming has contributed to rural food insecurity and rising food prices (D. Richards 2010).[4]

As with yuyeros, this state of affairs results in persistent underemployment. Lindo Manantial farmers cannot live from their agricultural activities alone, even if some households manage to grow a relatively diverse range of foods for household use and sometimes local, petty trade. As such, they are increasingly dependent on off-farm work and remittances from adult children who have moved to work in urban settings. Although there are exceptions, employment is often informal or low-paying, including domestic, construction or ranch-hand jobs, which in themselves offer limited security for migrants. Yet, just as yuyeros understand that traditional medicines cannot be the only health care options in Paraguay, farmers acknowledge that Paraguayans cannot produce all the foods consumed in Paraguay, nor can small-scale farming be the only viable form of farming in the country. What they do want is to be recognized as being able to contribute some of the foods available to the everyday Paraguayan consumer, and they want the support and acknowledgment necessary to do so.

Concluding Thoughts

In this article we have demonstrated that, despite working in different sectors of the Paraguayan economy, both yuyeros and campesinos argue that they experience marginalization and neglect, whether in terms of poor or crumbling infrastructure, political priorities for economic development or the dismissal of their skills, knowledge and products by national and local decision-makers and elites. Precarious livelihoods and questions about security are entangled with this marginalization. Even when, as in the case of yuyeros and traditional medicinal knowledge, they are connected with important notions of Paraguayan identity and tradition, this is not necessarily understood as being valued by elites and governance structures. Inequities and livelihood struggles, then, become part of everyday reality as a result of the ways economic and power structures are set up and maintained. At the same time, Paraguay as a nation is marginalized when it comes to its economic and political relationships with its larger Mercosur trading partners. This is something that campesinos in particular recognize when they discuss the inability to compete with the prices of crops imported from Brazil or Argentina.

Campesino and yuyero experiences also highlight the ways in which the assignment of value (economic and cultural) is intertwined with their livelihoods. Concerns about the future of their livelihood practices are not just about individuals or households. Instead, participants point to worries about and implications for the future of the place of certain bodies of knowledge within the Paraguayan nation. These livelihood and practical anxieties point to the need for Paraguayan elites and power-holders to rethink, in a positive and meaningful way, the value of yuyero and campesino knowledge, activities and contributions to the nation.

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Notes

1 President Lugo and his coalition did not have a majority in the National Congress, and many of his initiatives did not have the support of other members of the government. See Bertelsmann Stiftung BTI 2012 and Nickson 2012 for a more detailed discussion.

2 Yuyeros point out that traditional remedies cost much less than pharmaceuticals, which may contribute to their popularity.

3 Personal interviews with faculty members, 22 and 26 July 2011, Universidad Nacional de Asunción.

4 See Gartin (2012) for an exploration of urban food insecurity in Paraguay, particularly in terms of food deserts and food prices.

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